

AU/ACSC/WESTBY/AY11

AIR COMMAND AND STAFF COLLEGE

AIR UNIVERSITY

**TACTICAL AIRLIFT AND DIRECT SUPPORT:
THE KEYS TO USAF RELEVANCE IN MODERN
COUNTERINSURGENCY AND THEIR STRUGGLE AGAINST
AIR FORCE CULTURE**



Eric L. Westby, Major, USAF

A Research Report Submitted to the Faculty
In Partial Fulfillment of the Graduation Requirements

Maxwell Air Force Base, Alabama

April 2011

Disclaimer

The views expressed in this academic research paper are those of the author and do not reflect the official policy or position of the United States government or the Department of Defense. In accordance with Air Force Instruction 51-303, it is not copyrighted, but is the property of the United States government.



Contents

	<i>Page</i>
Disclaimer.....	ii
Abstract.....	iv
Preface.....	vi
Introduction.....	1
Literature Review.....	5
Historical Review of Tactical Airlift in Counterinsurgency.....	10
Tactical Airlift in Afghanistan Today: Operation ENDURING FREEDOM.....	22
Air Force Culture and Its Aversion to Playing a Supporting Role.....	24
Recommendations.....	30
Conclusion.....	37
Endnotes.....	39
Bibliography.....	43

Abstract

Throughout the history of manned flight, there have been counterinsurgency operations involving tactical airlift aircraft. Countless cases from Iraq in the 1920s to modern-day Afghanistan have proven that tactical airlift is not only useful, but critical to the success of the counterinsurgent commander. Tactical airlift provides an asymmetric advantage to the commander who has it versus the insurgent who does not. Rugged terrain and ambush-laden roads can be overflowed. Rapid mobility and resupply via airland or airdrop allow the counterinsurgent to maintain the initiative or respond to crisis situations. Wounded troops can be quickly evacuated to appropriate medical care and thus troop morale is improved.

Despite its undeniable value, the mission of tactical airlift is one that has been marginalized by Air Force culture. That culture, which evolved from the birth of the Air Force as a strategic bombing organization to a fighter-dominated one, has resisted the rise of support missions. General Hap Arnold shaped the culture as one that should not ever be subservient to the other services. His protégés took his vision and promulgated it forward. Even after the ascent of the fighter as the dominant role of the Air Force, the idea of support is largely abhorred by the greater Air Force culture.

In current counterinsurgency operations in Iraq and Afghanistan, the concept of direct support, where Air Force tactical airlift assets are placed under the tactical control (TACON) of ground commanders, has been developed and employed efficiently and effectively, and lauded by Army and Marine leaders. Yet the idea of direct support is regarded with disdain by the Air Force itself, largely due to the Air Force's cultural aversion to playing a supporting role.

This culture can be changed. Increasing the education of young officers on the inherent value if not necessity of tactical airlift in counterinsurgency will raise awareness and

appreciation for the tactical airlift mission. Increasing below-the-zone promotions and higher level awards for individual tactical airlift stars will increase pride and respect within the Air Force culture. The increasing number of senior Air Force leaders with mobility and tactical airlift backgrounds will also help shape the Air Force culture of the future. Finally, the continued employment of direct support will help the Air Force remain effective and relevant in the joint counterinsurgency fight, which is crucial to remaining relevant inside the Beltway.



Preface

In the summer of 2009 I deployed to Kandahar Airfield in Afghanistan as the 772nd Expeditionary Airlift Squadron Director of Operations. We shared a ramp with several coalition partners, including Canadian and United States Marine Corps (USMC) airlift units. I will describe this episode in the paper, but the crux of the story is that when the Marines desperately needed USAF help in the beginning of the 2009 surge, they were let down, despite the best efforts of those of us at the tactical level to get something done. Even after our initial successes, I was shocked and frustrated by the virtually open animosity and closed-mindedness we encountered from Air Force personnel as we pursued a course of action we called “direct support.” Additionally, it has become obvious the Department of Defense (DoD) budget continues to be spread thinner and thinner. The Services are in constant competition with each other for money and most favored status by DoD and other civilian leadership. The way to get money and to be looked upon most favorably is to be relevant in the current fight, which in today’s world is counterinsurgency, or COIN. Operation ENDURING FREEDOM in Afghanistan is at the forefront of that battle.

After having my eyes opened to a world history of small wars and counterinsurgency of which I had virtually no previous knowledge, I now believe that tactical airlift has always been a key yet often overlooked component of successful counterinsurgency operations. It is my purpose to bring to light the value of tactical airlift and demonstrate that it, rather than kinetic strike, is where the Air Force can prove its relevance and value going forward in the realm of hybrid warfare.

The first obstacle in this endeavor is the Air Force’s own culture. In its struggle for independence and respect within the DoD, the Air Force has always focused on being an

individual force capable of winning wars virtually on its own. The role of supporting the other services has been relegated to an afterthought. This cultural mentality has led to the current environment where the USMC and Army can not and often do not rely upon the Air Force for assistance in accomplishing their combat missions. It is because of my desire to help change that culture and ensure the Air Force remains relevant that I wrote this paper.



Introduction

Since the advent of manned flight, military commanders around the world have continuously sought useful means of employing the airplane in combat. As a result, airpower, with its myriad of applications, has evolved into an asset of considerable use to the counterinsurgent commander. The American public, and by extension, leaders in Washington, D.C., associate airpower with the dramatic “CNN video” kinetic effects that bombers, strike aircraft, and unmanned drones provide. This thought is promulgated by an Air Force culture that continuously strives to prove its relevancy on the modern battlefield. However, counterinsurgency warfare is essentially a ground forces affair, fought for and amongst the people.¹ Whenever ground forces are involved in any form of warfare, conventional or unconventional, logistics and mobility are of primary concern to the ground commander. Put another way by C.E. Callwell, “supply and transport are intimately bound up in all military operations.”² Supply and transport, otherwise known as logistics and mobility, form the primary pillars of tactical airlift. Thus it may be inferred that tactical airlift is crucial to any military operation, especially counterinsurgency. Several historical examples will illustrate the tremendously valuable role tactical airlift has played in COIN warfare.

Despite the critical nature of its mission and its proven inherent usefulness, tactical airlift has never been a priority or focal point for the United States Air Force. Strategic bombers, then fighters and ultimately strike aircraft have been suppliers of the kinetic form of airpower that has been the focus of the Air Force since the beginning of its history as a service struggling to become an independent arm of the military. This focus is not necessarily unwarranted. Air dominance and the ability to strike and destroy the enemy, including the insurgent, is a core reason for the existence of the Air Force. Even David Kilcullen, a noted proponent of the face-

to-face, boots-on-the-ground aspect of counterinsurgency, discusses how useful kinetic airpower can be during counterinsurgency operations. He describes the process of separating the enemy from the people by establishing a permanent ground presence with the local community, a wholly unacceptable situation to the insurgent, forcing him to attack, which in turn enables friendly forces, including kinetic air power, to be brought to bear to destroy him.³ As a cultural touchstone, this role of providing kinetic effects to destroy the enemy is relished by the Air Force, and rightfully so. However, the critical component of this counterinsurgent story that is usually overlooked is tactical airlift.

Kilcullen's notional counterinsurgent soldiers establish a permanent presence within the local community.⁴ But how are they resupplied? They are most likely located in remote, inhospitable terrain. The roads, if they even exist, are probably laden with Improvised Explosive Devices (IEDs) or are prime real estate for ground supply column ambush. How do the wounded get to capable hospitals? Tactical airlift fills these voids in the counterinsurgency capabilities plan. In fact, history is replete with tactical airlift playing vital roles in counterinsurgency warfare, yet most accounts, the few of which actually mention tactical airlift, focus very little on this basic truth. This paper will attempt to demonstrate the historical evidence for the usefulness of tactical airlift and the vital missions it performs in COIN.

Currently in Afghanistan, United States Air Force C-130s deployed in Bagram and Kandahar manage the vast majority of intratheater airlift, while C-17s provide intertheater lift as well as some tactical lift and airdrops. All USAF airlift in theater is coordinated by the Air Mobility Division (AMD), located at the Combined Air Operations Center. This system has scheduled and moved thousands of tactical airlift missions since Operations ENDURING FREEDOM (OEF) and IRAQI FREEDOM (OIF) began, and has been responsible for moving

millions of tons of supplies and hundreds of thousands of personnel. Yet the best way to incorporate tactical airlift in future counterinsurgency operations may be some version of direct support, as evidenced by operations in both Iraq and Afghanistan.

Direct support is a command relationship where a ground forces commander is given tactical control (TACON) over Air Force assets, specifically aircraft and crews, at the tactical level. It is similar to the relationship between Army helicopter crews and their local ground commanders. The C-27J is a new aircraft in the Air Force inventory that, though assigned to Air National Guard units, will provide direct support airlift missions for Army commanders. This study will illustrate that tactical airlift is precious to the ground commander in today's war in Afghanistan and that direct support can be a very efficient means of employing it.

The Air Force has struggled for much of its history, first to gain independence and then to earn respect on an equal footing with the other services. Thus the Air Force has become determined to be a stand-alone force capable of winning America's wars on its own. As a result, it has developed a culture where the very word "support" is abhorred.⁵ Lieutenant General "Pete" Quesada learned this reality first hand as he tried to develop the concept of close air support during and immediately after World War II.⁶

The tactical airlift tribe is now fighting a similar counter-culture struggle for respect and legitimacy within its own service. In fact Air Force culture, and perhaps arrogance, has negatively affected the joint fight, especially in counterinsurgency operations in present-day Afghanistan. This was evidenced by the hostile reception the concept of direct support received in Operation Enduring Freedom with respect to an interservice partnership developed by USAF and USMC personnel in Kandahar during the summer of 2009. Despite glowing feedback from the Marines, the Air Force culture produced an environment full of roadblocks, derision, and

lack of understanding or desire to understand the concept of direct support.⁷ The Air Force will come to realize that just as tactical airlift is the key to Air Force relevance within the modern battle space, direct support may very well be the key to the future of truly joint COIN warfare. However, this realization will occur only to the extent that the Air Force culture will accommodate this shift in perspective.

The Air Force must realize its own culture, based on long range bombers and fighter aircraft, may end up costing it relevance, which is the lifeblood of the military services in the post-Cold War world of thinly-spread military budgets. This potential eventuality of irrelevance would leave the Air Force with less prominence within the Department of Defense, less money, and therefore fewer aircraft of any type. Air Force culture has had a significant impact on the use of tactical airlift, and as a result, successful counterinsurgency warfare. This paper will explain how that culture developed from the birth of the independent Air Force and how it affects the Air Force's role in counterinsurgency still today.

Finally, this paper will conclude with recommendations for aiding the culture shift to one that places more emphasis on tactical airlift as a core role of the Air Force. It will argue that this shift must take place within both the tactical airlift community as well as the greater Air Force culture. Recommendations for implementing direct support in a limited way as a means of enhancing and maximizing the effects of tactical airlift within modern COIN operations will also be described. The Air Force must be flexible and allow itself to evolve with the changing environment of warfare. In today's war, tactical airlift must be at the forefront, not the fringe, of the United States' projection of airpower.

Literature Review

In reviewing the literature within the field of airpower in counterinsurgency, it becomes painfully obvious that despite countless examples of the value, if not absolute necessity, of tactical airlift to counterinsurgency warfare, there is actually precious little literature on the subject. In fact there are not copious amounts of literature regarding airpower in counterinsurgency in general, much less tactical airlift specifically. Corum and Johnson state that the reason they wrote *Airpower in Small Wars* in the first place was because they had trouble finding readings on the subject for their students at the USAF School of Advanced Airpower Studies.⁸ This book examines the use of airpower in small wars and counterinsurgencies from the beginning of the twentieth century to the present, and analyzes many conflicts and the use of airpower in each. Though it does not focus on the airlift aspect of airpower in counterinsurgencies, representative of most literature in this field, *Airpower in Small Wars* serves as a foundation for this study's historical perspective. Owen and Mueller's *Airlift Capabilities for Future U.S. Counterinsurgency Operations* encapsulates tactical airlift quite well. It is one of the few works found in preparation for this study which focused solely on tactical airlift in counterinsurgency. It briefly describes a history of counterinsurgency tactical airlift operations, discusses the proper employment of airlift in counterinsurgency, and touches on the potential need for a new, smaller tactical airlift platform to be used extensively in COIN warfare.⁹

The United States' first real experience with the use of tactical airlift and the military's realization of its inherent value in counterinsurgency warfare is illustrated by Max Boot in *The Savage Wars of Peace*. Boot describes the United States Marines and their groundbreaking use of airplanes to support ground forces fighting insurgents in Nicaragua during the late 1920s.¹⁰ *Airpower in Small Wars* picks up where Boot left off with several international examples of the

use of tactical airlift throughout the twentieth century. Corum and Johnson highlight the value of tactical airlift several times, albeit briefly, and point out that often transport aircraft have a greater value than kinetic effects.¹¹ In fact they make a very striking point in relation to this study: “strike takes a back seat to lift in counterinsurgency.”¹²

David Omissi contributes to this field with his book *Air Power and Colonial Control: The Royal Air Force 1919-1939*. He covers in great detail the evolution of Royal Air Force (RAF) air power in small wars and counterinsurgencies up to the beginning of World War II, and notes the British armed forces’ growing appreciation and use for tactical airlift in places such as Iraq in the 1920s.¹³ Philip Towle also describes the RAF’s tactical airlift in Iraq in *Pilots and Rebels: The Use of Aircraft in Unconventional Warfare 1918-1988*, including his description of two sieges in Iraq where the defenders were kept alive by airdropping supplies.¹⁴ Towle focuses on British use of airpower, without emphasizing airlift, before World War II and then describes the international use of airpower during the turbulent years following the war, including the British experience in Malaya¹⁵ and the French in Indochina.¹⁶

The American experience in Vietnam defies description as an entirely conventional war or a true counterinsurgency. In *Valley of Decision: The Siege of Khe Sanh*, Prados and Stubbe describe the application and necessity of tactical airlift and airdrop. While Khe Sanh was besieged by North Vietnamese Army regulars vice insurgents, the remote location, hostile terrain, and ground inaccessibility mirrors modern counterinsurgency operations in Afghanistan. A second Vietnam War example which demonstrates the success of tactical airlift is the battle of An Loc. *Hell in An Loc* was written by Lam Quang Thi, a South Vietnamese soldier who took part in the defense of An Loc. *The Battle of An Loc* was written by an American participant, James Willbanks. Both men attest to the immeasurable support tactical airlifters provided in the

successful defense of An Loc. In *Air Wars and Aircraft: A Detailed Record of Air Combat, 1945 to the Present*, Victor Flintham describes the methods tactical airlifters used and in some cases developed to keep supplies flowing into Khe Sanh.¹⁷ In all three books specifically covering the two major Vietnam War sieges, as well as in Flintham's work, tactical airlift and its applications are hailed as absolutely vital to the defenders' success.

While there is virtually no literature published on tactical airlift in Operation ENDURING FREEDOM in Afghanistan or IRAQI FREEDOM in Iraq, this paper hopes to both fill that void as well as point toward the future. Perhaps the most radical, and coincidentally the most effective use of tactical airlift is the concept of direct support. The Army has been dissatisfied with the amount of flexible, on-demand airlift for some time, and has used its own C-23 Sherpa for organic airlift.¹⁸ As Kenneth Horn, et al., report, the Army had planned on the new Joint Cargo Aircraft (JCA) to be designated an Army aircraft.¹⁹ The JCA, later designated an Air Force aircraft by the DoD, has been incarnated as the C-27J Spartan. Experts have recognized the need for a tough, rugged aircraft smaller than the venerable C-130 Hercules since Vietnam. Several studies, including those published by Major David Reinholtz in 1987 and the RAND project by Owen and Mueller²⁰ have discussed either the requirement for a small tactical airlift vehicle in general or the C-27J in particular. The C-27J, flown by Air National Guard crews, will be used in a direct support mission, working directly for Army commanders. It will fill the role of a tactical airlift vehicle specifically used to move small groups of passengers and smaller amounts of cargo into shorter, more austere airfields, perfectly suiting it for counterinsurgency operations.

In contrast to the dearth of literature on tactical airlift in counterinsurgency operations, there is a great deal written about Air Force culture. Based on that literature, the biggest

challenge that tactical airlift may encounter as it pursues pre-eminence, or perhaps at least a modicum of respect, within the Air Force is Air Force culture itself. Alexander Hughes notes that General Pete Quesada encountered resistance to his vision of the air-ground team during and after World War II. That resistance was the early embodiment of the Air Force's cultural identity. That identity, and thus the culture that exists still today was created and perpetuated by early Air Service leaders such as Hap Arnold.²¹ In his book *Organizational Culture and Leadership*, Edgar Schein explains how a culture develops and how new ideas or ways of doing business are not always welcomed with open arms.

Carl Builder provides similar insight into the development of American Armed Services culture in his book *The Masks of War*. He notes that services have “personalities” that are shaped by the environments surrounding their formation.²² This work fits quite nicely when transposed against the Air Force culture Quesada encountered and ultimately struggled against. Though he did not live to see it, Quesada’s ideas were proven to be correct. In fact, several years later the culture of the Air Force shifted from focusing on the strategic bomber to the pursuit, or tactical arm of aviation. Builder focuses specifically on this phenomenon within Air Force culture in his follow-up work, *The Icarus Syndrome: The Role of Air Power Theory in the Evolution and Fate of the U.S. Air Force*. In this study, Builder describes how the fighter pilot culture has superseded that of the strategic bomber and illustrates how Air Force culture has distanced itself even further from a role that focuses on supporting the ground combatant.²³ As today’s military prepares for and fights hybrid warfare accentuated by counterinsurgency operations, the time has come for another culture shift within the Air Force; this time to one that focuses on supporting ground forces.

As this study concentrates on the use of airpower in counterinsurgency operations, giants in the field of counterinsurgency such as David Galula and David Kilcullen must be referenced. First published in 1964, Galula's *Counterinsurgency Warfare: Theory and Practice*, may be regarded as the Bible of the counterinsurgent. Galula describes the theory behind insurgency, emphasizing the importance of the local population. He states a successful insurgency requires a cause, a weakened counterinsurgent, beneficial geography, and outside support or assistance.²⁴

In *The Accidental Guerilla*, Kilcullen focuses on his experiences with the ground forces aspect of counterinsurgency operations. Ironically, the subjects "airlift," "aircraft," and "cargo" do not appear in *The Accidental Guerilla*'s nor *Counterinsurgency Warfare*'s indices. "Transport" is not in *The Accidental Guerilla* index either, though "transportation" does have a one-page reference in *Counterinsurgency Warfare*. This does not mean that tactical airlift is not important to Kilcullen, or Galula for that matter. Galula, in fact, does state that the counterinsurgent commander will need short takeoff transport planes, and that they play a vital role in counterinsurgency operations.²⁵ However, it is up to Galula and Kilcullen's reader to perceive his own role within the two experts' methods for defeating insurgencies. This may be the most valuable part of their works. They did not produce "play-by-play" manuals. Their works should be regarded as guide-lines in how to be successful in COIN. Military leaders should use their own perspective and ingenuity to apply their craft, using Galula and Kilcullen's theories, to best operate and be effective in COIN.

Doctrinal documents also assist in determining tactical airlift's mission and value in counterinsurgency operations. The U.S. Army and Marine Corps Field Manual 3-24, *Counterinsurgency* provides insight to the Army and Marine perspective on tactical airlift. Appendix E of that manual, titled "Airpower in Counterinsurgency," provides a wealth of

information on the use of tactical airlift in counterinsurgency and attempts to educate the ground commander on the value, uses, and options that tactical airlift provides.²⁶ The original U.S. Marine Corps' *Small Wars Manual* has an entire chapter devoted to the use of aviation. Section VII of that chapter discusses the use of tactical airlift in its core roles: troop and supply movement, airdrop, and aeromedical evacuation.²⁷ The Air Force released Air Force Doctrine Document (AFDD) 2-3, *Irregular Warfare* in 2007. It was renamed AFDD 3-24 in September 2010 to better align with the Army and Marine FM 3-24. A new edition of AFDD 3-24 is currently in development. Pointedly, the current edition actually spends less space addressing the use and value of air mobility in COIN than does the Army and Marines' FM 3-24.²⁸

As Corum and Johnson state, other literature on the subject of small war airpower is “quite thin”²⁹ and the sub-topic of tactical airlift as a facet of airpower in counterinsurgencies or small wars is almost non-existent. This paper aims to rectify that, at least in its own small way.

Historical Review of Tactical Airlift in Counterinsurgencies

If necessity is the mother of invention, war is the mother of tactical airlift. The warrior’s creative use of available assets in order to attain his objectives predates the airplane. The emergence of the airplane simply made available another tool insightful warriors use in creative ways. Primary amongst these are rapid mobility, resupply, and aeromedical evacuation despite rugged and remote terrain and hostile environments. These core roles of tactical airlift proved its necessity during counterinsurgencies throughout the 20th century and will be highlighted using the following six examples.

The British in South Africa: Counterinsurgency without Tactical Airlift

The first conflict examined is an insurgency that actually predates the use of tactical airlift to better illustrate its true value to the counterinsurgent commander. Seeking independence at the turn of the twentieth century, the Boers of South Africa rose up against the British Empire for the second time in a decade. The conflict came to be known as the Second Boer War. It should be noted that though this conflict predates tactical airlift, airpower was in fact employed; balloons were used for observation.³⁰

Boer Commandos used their keen knowledge of the terrain, sabotage, and ambush techniques to harass and evade British fielded forces, which were led by Field Marshal Lord Roberts.³¹ He demanded a large quantity of horses, which enabled his soldiers to move quickly in response to Boer Commando sightings or reported movements.³² In remote, rugged terrain, he relied heavily on railroads and huge, slow wagon columns for troop movement and resupply, both of which were plagued by ambush. Boers destroyed railway stations and twisted rails.³³ Despite his efforts, his logistics network was plagued by insurgents until the end of the war.³⁴

The Boer Wars can easily be transposed to today's modern counterinsurgencies, where commanders face the same problems as Lord Roberts did in South Africa. The counterinsurgent commander controls forces spread throughout a vast, rugged area. He needs rapid mobility to move his troops quickly in response to insurgent activities. He requires a method of resupply impervious to attack or ambush, since the roads and railways are vulnerable or sabotaged. His sick and wounded have very little chance for survival if they cannot be transported to proper medical facilities fast enough. Tactical airlift is the solution to many of the counterinsurgent commander's dilemmas. Warriors throughout the twentieth century learned this lesson and employed it successfully, as the following examples demonstrate.

The British Royal Air Force in Iraq

While post-World War I American Air Service pioneers such as Billy Mitchell were adamantly arguing for an independent air arm of the military capable of offensive action,³⁵ the British Royal Air Force (RAF) was pioneering the use of aircraft for non-kinetic effects within a counterinsurgency. In 1920, an Arab rebellion in Iraq resulted in four of the five roads into Baghdad being cut off and the isolation of several British outposts. Two such posts, one in Rumaithah and another in Kufah, were besieged yet kept alive by RAF tactical airlifters who airdropped medical supplies and ammunition. In fact, the outpost in Kufah was sustained for nearly three months.³⁶ Later, this time fighting Turkish forces, the British exploited the value of tactical airlift even further. During a campaign in April 1923 which resulted in the reoccupation of Kurdistan, RAF tactical airlift played a significant role, airdropping supplies, evacuating the wounded, and providing rapid mobility for troops.³⁷

Airdropping supplies by parachute became a very valuable technique for the British in Iraq, one that has become a core competency of tactical airlift. A wide variety of critical supplies including 1,000 pairs of boots and 3,000 pairs of socks, which prevented soldiers from going barefoot, were airdropped by Vickers Vernon aircraft to a column during the Kurdistan campaign as it made its way through the inhospitable mountains.³⁸ Throughout the troubles in Iraq during the 1920s, the RAF demonstrated the power of airdrop: it sustained isolated posts, extended the range of patrols, and comforted ground commanders in that they could trust their lines of communication would remain open.³⁹

The RAF illustrated another core element of tactical airlift in the same conflict: rapid mobility. On several occasions, British troops were moved great distances over hostile terrain by air. In February 1923, ten Vernon aircraft moved two fully-outfitted Sikh infantry companies to

Kirkuk in preparation for a Kurdistan campaign.⁴⁰ This enabled British commanders to seize the initiative, illustrating the use of mobility in the tactical environment. Similarly, after a massacre in Kirkuk in May 1924, troops were flown 150 miles and arrived on the scene the same day. Transporting those same troops over land would have taken five days.⁴¹ Whether using mobility for seizing the initiative, attaining an element of surprise, or rapidly responding to emergencies or enemy actions, tactical airlift quickly established its value in counterinsurgency operations.

A third tenet of tactical aviation, aeromedical evacuation, was also explored and employed by the RAF in Iraq. The British discovered that airlifting sick or wounded soldiers could avoid long, dangerous overland journeys. In one instance, 200 dysentery and diarrhea victims were airlifted from Kurdistan to Baghdad, a trip that would have taken six painful days through the mountains on donkeys. They also pioneered the concept of using large transport aircraft for aeromedical evacuation. After 1924, new heavy transport aircraft were specially designed to be locally converted into air ambulances.⁴² The value of aeromedical evacuation by airlift was further demonstrated by the United States Marine Corps in Nicaragua.

Early American Experience: The Marines in Nicaragua

The American experience with tactical airlift begins with the United States Marines and their exploits in the “Banana Wars” of Haiti, Nicaragua, and the Dominican Republic. Perhaps the most famous early example of American tactical airlift occurred in Nicaragua in 1928. In December 1927, 174 Marines, after being ambushed in two separate columns, made their way into the village of Qualili. The Marines quickly found themselves under siege by about 400 Sandinista insurgents. Eight men were dead, 31 were wounded. The Marines realized that moving their wounded by air would be the only way which gave them a chance to survive. 1Lt Christian Schilt flew a Vought O2U-1 Corsair biplane ten times into the village over three days

in early January 1928, landing on a small, rough strip the besieged Marines had carved out of the center of town. He brought in 1,400 lbs of supplies and flew out 18 wounded men while under constant fire from surrounding insurgents.⁴³ The Medal of Honor winner had pioneered both American tactical airlift and aeromedical evacuation.

Throughout their experiences in the Banana Wars the Marines discovered that the airplane could be used for non-kinetic yet equally valuable missions. Fortunately, the Marines codified their lessons learned about the use of counterinsurgent airpower in the *Small Wars Manual* which was published in 1940.⁴⁴ This manual has an entire chapter devoted to the use of aviation in small wars.⁴⁵ Unfortunately, World War II virtually erased interest in small wars and counterinsurgencies, to the extent that both American and other air forces had to re-learn several counterinsurgency airpower lessons in the decades following the war.

The British and the Malayan Emergency

After World War I ended a new phase of insurgency, the revolutionary insurgency, dawned.⁴⁶ While this type of conflict was muted by the Second World War, it re-emerged in the mid-twentieth century. After World War II ended, one of the first communist or People's Revolutionary insurgencies began in Malaya in 1948. The Malayan Communist Party, or MCP, wanted control of the country and the British out of it, and the uprising began in June 1948.⁴⁷ Malaya is characterized by rugged terrain covered by dense jungle, making it perfectly suited for an insurgency. British outposts were attacked and vehicles on roads were frequently ambushed. The attackers escaped by simply melting into the jungle.

After initially focusing on bombing missions, Air Vice Marshal Mellersh declared in 1951 that the RAF's missions in Malaya, "in order of importance, were air supply for the Ground Forces, offensive operations on targets beyond the reach and resources of the Ground Forces;

and intercommunication.”⁴⁸ The RAF had already embraced this priority on air supply with gusto. In September 1949, British troops spent a month in the jungle hunting down a group of 150 insurgents led by Chan Sam Min. The RAF airdropped over 89,000 pounds of rations to them using twenty-eight C-47 Dakota sorties.⁴⁹ As the number and frequency of British patrols increased, so did the demand for aerial resupply. In 1950 the RAF airdropped 3.5 million pounds of supplies and another six million pounds in 1951.

The tactical airlift missions airdropping supplies to the patrols in Malaya deserve special attention. The soldiers on these patrols carried roughly four days’ worth of supplies into the jungle with them. RAF airdrops enabled those patrols to stay in the jungle, on the hunt, for up to three months.⁵⁰ Tactical airlift had become both a force enabler and multiplier. In addition to running prolonged patrols in the jungle, the British ground forces also established numerous hill forts throughout the country in 1953. This endeavor also highlighted the value of tactical airlift, as all the fort-building equipment, including tractors for clearing airstrips, was airdropped by the RAF. Once the forts were completed, the troops based there were also kept supplied by airlift.⁵¹

The British effort during the Malayan Emergency has been called the model of successful counterinsurgency. The Emergency itself could also be called an “airdrop war,” as roughly 24 million pounds of supplies were airdropped between 1948 and the end of the insurgency in 1960.⁵² It is no coincidence that tactical airlift played a massive role in this successful counterinsurgency. Airdropping supplies and troops was generally regarded as the most effective use of counterinsurgent airpower in Malaya.⁵³ As Victor Flintham affirms, “the importance of air supply in Malaya cannot be overstated.”⁵⁴

The French in Indochina

After World War II ended and the Japanese were pushed out of Indochina, the French attempted to re-assert control over the area. Ho Chi Minh and his Viet Minh government resisted, and an insurgency erupted in 1946. When Mao Tse-tung conquered China, the Viet Minh had the sanctuary they needed to rearm and retrain.⁵⁵ Another “People’s Revolution” was underway, yet the weakened French were still recovering from World War II. They started the war with a few obsolete aircraft, but were bolstered by equipment loans from the U.S., including venerable C-47 Dakotas and C-119 Boxcars.⁵⁶

The French implemented tactical airlift in many ways, but they put a premium on airdropping troops. The French were very pleased with the performance of their paratroops, and thus one of the main characteristics of the French experience in Indochina was the extensive use of paratroop operations.⁵⁷ The French used airborne parachutists to attack the enemy, bolster besieged troops, and cover escapes. In 1951 alone parachutists were airdropped to reinforce and defend Lai Chau, Le Day, Mao Khe, and Hoa Binh.⁵⁸ In November 1952, over 2,300 parachutists were airdropped by the entire C-47 fleet plus some civilian aircraft in a single massive tactical airlift operation.⁵⁹

The relatively safe, swift mobility that tactical airlift provides, a common theme throughout the history of counterinsurgency airpower operations in the 20th century, was also demonstrated and exploited by the French. The Viet Minh controlled the roads, especially at night. French vehicles travelling by day were also susceptible to ambush or mines.⁶⁰ Similar to the British experience in Iraq, the French realized that the sheer size of the country made aerial transport a better option than overland travel. French troops could be moved in hours over distances that would have taken trains or boats days or weeks.⁶¹ Additionally, tactical airlift’s

rapid and persistent mobility ensured French commanders that troops could be moved quickly and en masse to “hot spots.” For example, when the mountain fortress at Lai Chau was besieged, troops and supplies were steadily and rapidly transported there, with “an aircraft movement every two minutes.”⁶² French forces there persevered because of tactical airlift.

One cannot speak about the French in Indochina without mentioning Dien Bien Phu. While the 1954 siege was a horrific defeat and for all intents and purposes ended the French effort in Indochina, it nevertheless involved a massive tactical airlift operation. The Viet Minh quickly overran several defensive locations and effectively closed the airfield during the day, yet transport aircraft still managed to get in at night and evacuated 223 wounded over the next few weeks.⁶³ Having to rely almost solely on airdrop procedures and despite heavy anti-aircraft fire, French aircrews were able to bring in over 6,400 tons of supplies via 6,700 sorties.⁶⁴ The siege of Dien Bien Phu lasted fifty-six days, and that only because of twenty C-119 sorties and fifty C-47 Dakota sorties each day.⁶⁵

The disaster of Dien Bien Phu has been called a failure by tactical airlift to sustain a besieged force. This view oversimplifies the situation. While the garrison was indeed lost, airlift in itself did not fail; there were not enough aircraft and thus airlift available to be successful. This validates the argument that tactical airlift must not be overlooked when planning counterinsurgency operations.

Though the French were eventually defeated in Indochina, they did prove the usefulness of dropping parachutists and combat air mobility. The French experience also reinforced the notion that in rugged, remote terrain with roads that are denied or mined, tactical airlift is invaluable. There is little doubt they held off defeat as long as they did because of tactical airlift.

The United States in Vietnam

The United States had been providing advice, training, and equipment to the South Vietnamese since 1954 when it was drawn fully into war with North Vietnam and Viet Cong insurgents in 1964.⁶⁶ The war in Vietnam is unique in that it can be considered a hybrid war. To the north, the enemy was a uniformed, organized, large North Vietnamese Army (NVA). In the south, an insurgency was being conducted by an extremely large force of Viet Cong hidden amongst the villages and in the jungle. The conflict in Vietnam involved a vast array of air operations, including tactical airlift. The peak airlift effort there was reached in 1968, when roughly 3,000 tons of cargo and 10,000 passengers were transported *daily*.⁶⁷ Calling it “the first airlift war,”⁶⁸ Owen and Mueller state that “the United States provided the canonical example of counterinsurgency airlift during the Vietnam War. Challenged by a numerous and skilled enemy operating in rugged and heavily vegetated terrain, and being blessed by a relative abundance of resources, U.S. military forces in Southeast Asia relied on airlift to an unprecedented degree.”⁶⁹ Two specific events in Vietnam may be considered seminal moments in modern American tactical airlift history: the sieges of Khe Sanh and An Loc.

Khe Sanh was a village located in South Vietnam near the Laotian border. It stood on Route 9, the northernmost east-west running road in South Vietnam. This road accessed both Laos and the Ho Chi Minh Trail.⁷⁰ It was decided that the U.S. Marines would hold Khe Sanh, although the actual importance of the location remains debatable.⁷¹ Even though the battle was fought against the regular NVA, it illustrates the value of tactical airlift to combat operations, especially counterinsurgencies. Khe Sanh was a small base, surrounded by the enemy in rough jungle terrain with few roads; an ideal situation for both insurgents and conventional forces to mount an attack. The road that did exist, Route 9, was incapable of enabling large logistical

movements in the first place and was closed due to ambush concerns. The last convoy to use Route 9 traversed it on August 5, 1967.⁷² After that the base was supplied by airlift, and the siege itself lasted from January to March 1968.

The Khe Sanh airlift workhorses were C-123, C-130, and C-7 aircraft. Flying into the airstrip was not easy, as there was constant fog and the NVA had a strong anti-aircraft artillery presence. Additionally, aircraft were subject to mortar fire after landing.⁷³ Often the runway had to be closed due to mortar fire, damaged surfaces, or wrecked aircraft. When the airstrip was unusable, the Marines relied on airdrops for supplies and ammunition. The C-130s flew the bulk of the airdrop sorties, 456 out of 496 overall, dropping 8,120 tons of supplies.⁷⁴ Despite heavy anti-aircraft fire and a small drop zone 300 yards long, the USAF crews managed to achieve circular average error of only 110 yards.⁷⁵ To put that in accomplishment in perspective, modern C-130 crews with advanced computers and refined ballistic parachute data train to the standard of 300 yards for the circular average error limit.⁷⁶

Tactical airlifters developed several techniques for delivering cargo, including assault approach and landing, Low-Altitude Parachute Extraction System (LAPES), Ground Proximity Extraction System (GPES), and procedures for unloading while moving, called “combat offloading” today.⁷⁷

Combat offloading became very important at Khe Sanh, both to speed up the flow of aircraft in and out of the airstrip and to avoid becoming a “sitting duck” for NVA mortar crews. Combat offloading worked so well that the average time spent on the ground from landing to departure was three minutes.⁷⁸ By the end of the siege, the aircraft that landed at Khe Sanh had delivered over 4,300 tons of cargo and 2,676 passengers. They also brought out 1,574

passengers and evacuated 306 wounded.⁷⁹ The efforts of USAF tactical airlift enabled the heroic Marines to survive and break the siege of Khe Sanh.

In 1972, the North Vietnamese launched what they called the Nguyen Hue Campaign. It began on Good Friday, and thus in the United States it was called the Easter Offensive.⁸⁰ An Loc was a city located in South Vietnam near the Cambodian border, 76 kilometers (60 miles) northwest of Saigon. The NVA aimed to seize the South Vietnamese capital as part of their overwhelming offensive, and because of its strategic location on the highway, the NVA had to first conquer An Loc.⁸¹ The NVA began shelling and encircling the city on April 5, 1972. After the highway and airfield were lost, airdrop became the only way to resupply the besieged city. It would not be easy, since the NVA steadily improved their anti-aircraft assets. Five C-130s were shot down, and 56 were damaged; 17 crewmembers were killed or listed as missing in action, and another ten were wounded. Yet from April 11 to July 12, American and South Vietnamese aircrews flying C-130 and C-123 aircraft dropped 1,182 parachutes which were recovered by the defenders, successfully delivering 1,138 tons of food, ammunition, and medicines, and 35,500 liters of petroleum, oil, and lubricant (POL).⁸² After early setbacks and losing loads to the enemy, tactical airlifters once again used ingenuity to solve the aerial resupply problem. They decided to use high-velocity drogues instead of the standard parachutes. These slotted chutes stabilized falling loads, reducing drifting distance. The first high-velocity Container Delivery System (CDS) airdrop was made on May 8. Of the 140 “high-v” bundles dropped between 8 and 10 May, 139 landed on the drop zone.⁸³

Despite long odds for victory and a grim outlook, the aerial resupply of An Loc illustrates yet another tactical airlift contribution; boosted ground combatant morale. After the development of high velocity CDS, the supply situation in An Loc improved greatly, which

naturally resulted in improved morale among the besieged troops. One of the American advisors in An Loc said that the successful airdrops “had almost an undefinable impact in raising their [the ARVN defenders] morale, giving them hope and raising them from a total situation of frustration to one of confidence.”⁸⁴ This boost in morale along with the supplies provided enabled the besieged troops of An Loc to persevere against the odds. An Loc was relieved and the siege broken on July 20, 1972. Once again, tactical airlift had enabled outnumbered and isolated ground forces to withstand a siege by a tough, determined enemy.

Lessons from History

With the advent of the airplane and its application through tactical airlift, the threat of insurgent ambushes of supply trains and vehicles is greatly diminished. Remote, rugged terrain can be overflowed. Troops and supplies can be moved rapidly over great distances. Small, remote outposts or patrols can be kept supplied by airland or airdrop and fend off attackers for prolonged periods of time. Troops know that wounded have a better-than-average chance for survival because aeromedical evacuation can get them to proper medical facilities quickly. As a result, their morale is bolstered.

Tactical airlift provides keys to successful counterinsurgency operations that others cannot duplicate: rapid mobility, the ability to resupply unhindered by rugged terrain or insurgent ambush, and the morale-boosting guarantee of safe evacuation of wounded troops. Its value to counterinsurgency operations cannot be denied, and has been proven time and again. Perhaps the United States Marines said it best in their *Small Wars Manual*: the transport aircraft “has proven indispensable for small wars operations.”⁸⁵ The Air Force would be wise to heed the words of the Marines on this subject.

Tactical Airlift in Afghanistan Today: Operation ENDURING FREEDOM

Tactical airlift is once again proving its tremendous worth to counterinsurgency operations in Afghanistan in support of Operation ENDURING FREEDOM. C-130 squadrons stationed in Bagram and Kandahar provide the bulk of fixed-wing intratheater airlift, while C-17s fly missions from Germany and Qatar, performing both strategic intertheater lift and tactical airdrops within Afghanistan.

Afghanistan is the classic insurgency. Incredibly rough, hostile terrain traced by roads littered with Improvised Explosive Devices (IEDs) combined with a very limited number of passes through the mountains ripe for sniper and ambush attack make ground logistics and troop movement very difficult. It is a relatively large country with vast open deserts and long, deep valleys. It provides a perfect case study regarding the use of tactical airlift in counterinsurgency.

Reflecting their predecessors in previous small wars, aircrews in modern-day Afghanistan continue to perform missions that represent the core of counterinsurgency tactical airlift. Airdrop, aeromedical evacuation, and rapid mobility and resupply make up the majority of missions flown by C-130 crews. Additionally, new technology has enhanced the tactical airlift community's capabilities while operating in the often harsh environments associated with insurgencies. The Joint Precision Aerial Delivery System (JPADS) incorporates wind data from a drop sonde, a small parachute-equipped sensor, and GPS technology to drop supplies on small Forward Operating Bases (FOBs) located in remote locations within insurgent-controlled territory in deep valleys surrounded by tall, jagged peaks.

Airdropping leaflets is not new to counterinsurgency operations. But new technology has enabled a more precise and effective method of dropping Psychological Operations (PSYOPS) messages. Using updated wind data and the Leaflet Tool computer program, air crews have

become very accurate at dropping what was once a random area-coverage deliverable. In 2009 a C-130J aircrew dropped leaflets from several thousand feet on two villages over five miles away. A US Army PSYOPS operative on the ground there declared “it’s snowing leaflets here. I never even saw you. Great job!”⁸⁶

The C-130J Debuts in Kandahar

The newest member of the C-130 lineage, the C-130J, made its active-duty Air Force debut in Afghanistan in March 2009. Located in Kandahar, this tiny squadron which in 2009 consisted of only four aircraft has become the stalwart of tactical airlift in OEF. Besides dropping leaflets as described above, the “J” has fully embraced the pillars of tactical airlift including airdrop and aeromedical evacuation, and accomplishes its missions with astonishing effectiveness. In its abbreviated year of OEF duty in 2009, that squadron flew 3,456 sorties. It moved 53,370 personnel, transported 247 wounded, airlifted 13,787 tons and airdropped 1,088 tons of water, food, ammunition, supplies and equipment, all while maintaining an impressive 98.45% mission effectiveness, or completion percentage.⁸⁷

In 2010, its first full calendar year in Afghanistan, the C-130Js flew 4,900 sorties while transporting 49,764 passengers and 1,538 wounded. The Kandahar squadron also moved 49,764 tons of cargo and airdropped 3,082 tons of supplies to friendly forces.⁸⁸ These numbers are roughly paralleled by the C-130 squadron stationed at Bagram Air Base.

It cannot be understated how much of an advantage tactical airlift provides. Counterinsurgent commanders and the Air Force community must realize the value of tactical airlift and use it appropriately, or they risk not utilizing a key asymmetric advantage in COIN operations. Unfortunately, it is oftentimes the Air Force culture that becomes the greatest obstacle to the effective use of tactical airlift.

Air Force Culture and Its Aversion to Playing a Supporting Role

Upon observing both the historical and modern evidence supporting the importance of tactical airlift to counterinsurgency, one may ask why that mission does not hold more prominence within the Air Force. Indeed, in a world of ever-thinning military budgets and the omnipresent search for favor within the Washington, D.C. beltway, why doesn't the Air Force highlight itself by touting and placing an emphasis upon the value of tactical airlift in counterinsurgency operations? The answer is because the Air Force, as a culture, regards tactical airlift as a fringe mission, not one of its core-focus competencies. Air Force culture must be analyzed in order to both explain this phenomenon and produce the necessary change within that culture which would in turn benefit the Air Force in the future.

Culture as a Result of the Environment Surrounding an Organization's Birth

In his seminal work on military culture, *The Masks of War*, Carl Builder states that “the military services have acquired personalities of their own that are shaped by their experiences and that, in turn, shape their behavior.”⁸⁹ Builder continues by stating that those personalities are likely to be significantly impacted by the circumstances, or environment, surrounding their formation.⁹⁰ The Air Force became an independent arm of the military after years of struggle by men such as Hap Arnold and Billy Mitchell. These men and others like them who formed the nucleus of leadership within the fledgling Air Force were convinced that air power could provide decisive action in war and that those decisive weapons of the air must be controlled not by the Army but by Airmen. These mantras of decisive kinetic results and fierce independence not subservient to the Army are core features of Air Force culture. Schein validates this when he states that organizational culture springs from the beliefs, values, and assumptions of the founders of the organization.⁹¹ This is borne out by the father of the Air Force, Hap Arnold, who

said, and simultaneously imprinted upon Air Force culture, “the very word ‘support’ always makes people think of air power as an ancillary weapon of the Army or the Navy.”⁹²

Arnold’s fierce opposition to being perceived as subservient to the Army should not be understated. Schein focuses particularly upon the importance of an organization’s early leader. He declares that “culture is created by shared experience, but it is the leader who initiates this process by imposing his or her beliefs, values, and assumptions at the outset.”⁹³ The culture of the Air Force organization was born in an environment where subservience to the other services was anathema. This mindset was adopted and promulgated by Arnold’s core group of Air Force leaders, including men such as General Louis Brereton. One of Brereton’s staffers said that “Brereton treated the role of support as a cancer the air forces had to deal with.”⁹⁴ Subsequent leaders of the young Air Force continued this train of thought. General Curtis LeMay was one of Arnold’s young protégés who became the first commander of Strategic Air Command and later Chief of Staff of the Air Force. In both roles he aggressively shaped the focus of Air Force culture around the strategic bomber.

As the Air Force culture evolved behind the nuclear threat from the Soviet Union, its emphasis on supporting roles decreased even further. Corum and Johnson state that “United States Air Force thinking about air power outside of strategic attack was decidedly lacking. Much of the answer for this narrow view is attributable to the fact that early American air power proponents considered the vision of an independent Air Force to be inextricably tied to its strategic utility.”⁹⁵ Pete Quesada and his ideas on tactical pursuit aviation encountered this cultural roadblock in Operation OVERLORD during World War II. As a young culture, Army Air Corps leaders believed that close air support did not advance the cause of an independent air

force, and thus that mission was neglected by pilots and ignored or dismissed by Quesada's superiors within the Air Corps.⁹⁶

Though air power's first mission was observation, that role, along with mobility, has been relegated to a second-class or fringe mission. The strategic bomber and its mission was the "face" of the Air Force. The pursuit or tactical fighter aircraft was secondary, but increased its influence until sometime in the 1970s, when the fighter aircraft that were so predominant in Vietnam became the prime focus of the Air Force. Secondary missions such as observation and mobility, according to Builder, had become stepchildren of the service, living on the fringes of core Air Force culture.⁹⁷

Beyond the second-class citizenship air mobility in general must deal with, tactical mobility has been even further marginalized because of its role in counterinsurgency. The large-scale, conventional war has always been at the forefront of Air Force strategy and training. The role of air power, especially that of tactical airlift, in counterinsurgency was considered "tactical" or "special" and thus outside the mainstream of Air Force thinking.⁹⁸

The result of this cultural evolution is that mobility in general and tactical airlift within COIN operations in particular have been relegated to secondary missions of the Air Force. Despite evidence suggesting that kinetic effects, while effective in limited situations, are not as important as tactical airlift within counterinsurgency, Air Force culture continues to put its primary emphasis upon attack aircraft.

Direct Support and the Air Force's Cultural Resistance

The troop surge and increased focus on Afghanistan by the United States government has leaned heavily upon tactical airlift, especially the C-130 squadrons deployed there. As evidenced by the statistics listed previously, the Air Force C-130J squadron at Kandahar

provides a vital service to the Army and Marines who rely upon them. In fact, during the summer of 2009, the Marines in Kandahar became nearly dependent upon the Airmen there for maintaining the momentum of the troop surge. The Marines had only three KC-130J aircraft at Kandahar. In early May 2009, two were down for maintenance, and the third was required for air refueling missions. The surge in Afghanistan was beginning in Helmand province, and a USMC Marine Expeditionary Unit (MEU) was being moved into Bastion Airfield (Camp Leatherneck). The Marines were very frustrated with the slow mission validation and assignment time used by the CENTCOM Deployment Distribution Operations Center (CDDOC) and the Air Mobility Division, a process that takes three to five days from request for lift to mission execution.⁹⁹

The operations officers and commanders of the two units on the ground in Afghanistan formed excellent personal relationships and developed a theory for direct support. The USAF squadron added an extra mission to their schedule, while the Marines worked with their counterparts at Bastion to get slot times. The SNCOs from both units worked together to put load plans together. AMD and Air Terminal Operations Center (ATOC) personnel were not pleased nor convinced it was a good idea, yet approval was given for direct support missions for a limited duration. Between May and July fourteen direct support missions were flown.¹⁰⁰ Most consisted of triple or even quadruple shuttle runs between Kandahar and Bastion, and moved over 640 tons of cargo and 163 passengers. Every mission was utilized at 100% capacity on outbound legs from Kandahar. Standard AMD-tasked missions from the Kandahar hub were on average much less than 100%, and in fact there were several AMD-tasked missions to fly to Bastion that were cancelled due to no load available in the ATOC system.¹⁰¹

Prior to the direct support initiative, the Marines, frustrated by the three to five day wait, would often find other airlift suppliers, including other Coalition airlift assets. As a result, when the mission they requested became assigned three to five days later, the scheduled load had already been moved, causing some Bastion missions to be cancelled. This illustrated the inflexibility and inefficient process used by AMD in Afghanistan. The entire system is built for strategic airlift, yet the COIN environment demands more responsiveness, speed, and flexibility; characteristics inherent to direct support.

The Marines were ecstatic with the direct support results, as were the Air Force expeditionary squadron, group, and wing commanders. At the tactical level morale, efficiency, and effectiveness all improved drastically. A local United States Army commander heard about the successful program and inquired as to how his unit could receive similar support.¹⁰² Yet AMD and ATOC were thoroughly put out by it. A Kandahar ATOC flight commander stated that “there’s nothing wrong with the system. If the Marines want their stuff moved, then they need to play by our rules.”¹⁰³ In the end, the direct support mission was killed and replaced by a weekly channel mission. The Marines, frustrated with the return to the slow airlift responsiveness from AMD, began seeking help elsewhere again. The Australians, Canadians, and other entities were willing to provide immediate airlift, and as a result, the USAF was often not the Marines’ number one option for airlift in the theater. After the bulk of the MEU equipment was moved to Bastion, the channel mission became underutilized, and several missions were cancelled due to lack of loads.¹⁰⁴ This emphasizes the point that direct support should be enacted for limited durations under special circumstances, such as the Marines moving into Helmand during the surge.

C-27J Direct Support in Iraq

The direct support experiment at Kandahar was not the only such trial run by the Air Force. In January 2010, the new C-27J Spartan deployed to Camp Speicher in Iraq in a direct support role within Operation IRAQI FREEDOM. Operational Control (OPCON) of the C-27 crews remained with AFCENT, but TACON was delegated to USF-I and attached to the Combat Aviation Brigade.¹⁰⁵ In the view of Colonel Keith Boone (AFCENT AMD Director), both direct support operations were tremendously successful.¹⁰⁶ Both the Army and the USMC units supported were extremely happy with the support relationship and the airlift results.

The Air Force cultural aversion to working under Army control continues to rear its ugly head today as Air National Guard units prepare to receive and operate the new C-27J. One officer summed up the prevailing Airman's attitude regarding future direct support thusly: "we don't want to work for the Army. Can you imagine it? They'll ignore all our rules about flying, crew rest, and how to do our job. They'll micromanage us and tell us to shut up and color if we complain about how they're using us. It'll be awful. Most guys around here are dreading it."¹⁰⁷

Yet the reality of direct support may be much more positive. During the Kandahar direct support experiment, one aircraft commander declared, "This is awesome. We're moving a ton of stuff, full all the time, getting it [the mission] done, and the Marines really appreciate it. This is what it's all about."¹⁰⁸

Despite cultural resistance to the concept of direct support, this type of mission is in fact a very effective and efficient method of employment which improves interpersonal relationships and joint interoperability. However, it must be carefully and judiciously employed in a situation-dependent method to prevent abuse or misuse.

One of the myths regarding direct support claims it is inefficient. This cultural belief was illustrated by an ATOC officer at Kandahar, whom, when questioned regarding direct support stated “it’s inefficient. Centralized control of airlift across the theater guarantees the spread of assets in the most efficient manner. They [U.S. Army and Marines] don’t care about efficiency. They only care about effectiveness; if they get their stuff when they want it. We care about efficiency.”¹⁰⁹ Similarly, when questioned about direct support, a senior USTRANSCOM leader said he “was willing to accept sacrificing efficiency for effectiveness in the last tactical mile.”¹¹⁰

The experiment in Kandahar presents the argument that if used properly, direct support can maximize both effectiveness *and* efficiency. Once Air Force culture realizes this fact it can embrace and be proud of this method of employment. Perhaps most pointedly, if the Army or Marines are pleased with the support provided and are able to accomplish their missions effectively in a timely manner, then direct support cannot be a bad thing.

Recommendations

The Air Force cannot ignore the potential for conventional war, and as such must retain a focus on bomber and fighter aircraft. However, the future of war will present a preponderance of irregular warfare, specifically counterinsurgency. In this realm tactical airlift must be recognized as the means by which the Air Force remains relevant to the designs of the Department of Defense. Though Operation ENDURING FREEDOM has been called a “helicopter war,” helicopters alone are not the answer to counterinsurgency warfare because they do not possess the speed, range, or payload capacity of fixed-wing aircraft.¹¹¹ Therefore, Air Force culture must embrace tactical airlift as a focus going forward. It must also find a way to acclimate itself to

innovative means of employment including direct support to maximize the asymmetric advantage tactical airlift provides in counterinsurgency.

Education on the History and Value of Tactical Airlift

The education of future and young officers is the key to the future of Air Force culture. By educating Reserve Officer Training Corps (ROTC) and Air Force Academy cadets as well as officers attending Professional Military Education courses on the history and value of tactical airlift, such as described above, the next generation of Air Force leaders will be less inclined to marginalize a role that has been emphasized throughout history.

Air Force ROTC cadets attend professional military classes for each of the program's four year curriculum. The second year focuses on the history of the Air Force and the evolution of Air Power theory and applications. This is a broad-stroke class which spans thirty classroom hours. The syllabus is a summary of the history of the Air Force as it applies to lessons learned and current airpower theory. Though it does mention specific examples of tactical airlift, including the story of Khe Sanh and the use of tactical airlift in Afghanistan, the bomber and the fighter cultures maintain a stranglehold on the course. Of the thirty hours, roughly half an hour is focused on tactical airlift, while a vast majority of the time is spent on fighter and bomber subjects such as the combined bomber offensive, the formation of Strategic Air Command (SAC), air superiority in Korea, and the use of strike aircraft in Vietnam, Desert Storm, Operation ENDURING FREEDOM and Operation IRAQI FREEDOM.¹¹²

The current curriculum at Air Command and Staff College spends approximately three lecture hours on tactical airlift in counterinsurgency operations. One of those hours was focused on the French failure at Dien Bien Phu. In comparison, twelve hours were spent on the origins of bomber theory, the combined bomber offensive of World War II, the strategic bombing of Japan,

and General Curtis LeMay and SAC culture. Given this emphasis on the bomber and lack of such on the tactical airlifter, it is no mystery as to why tactical airlift within counterinsurgency is a marginalized mission. It is marginalized by an academic institution of the Air Force itself.

This paper recommends a renewed focus on the value of tactical airlift within counterinsurgency. Air Force course curriculums are constantly reviewed and updated to reflect current thought. Today's focus on irregular warfare presents an opportunity to concentrate study on which air power assets have the most impact upon counterinsurgency operations. Air University should follow the thoughts of some of its own professors including Corum, Johnson, and William Dean, whom advocate the value of tactical airlift within counterinsurgency.

According to *Air University Instruction 36-2306 Air University Educational Program Review*, “the Air University Commander (AU/CC) and the AU Program Review Board review the educational programs of all AU professional military education (PME) programs, professional continuing education (PCE) programs, precommissioning education, undergraduate education, and graduate education programs to ensure they adequately meet Air Force and DoD requirements. In the case of PME and precommissioning programs, this review also addresses adherence to the Air University Continuum of Education (COE), which is developed and periodically updated by AU/CFA.”¹¹³ These reviews occur periodically, and the reviews for the Officer Training School (OTS), ROTC, and JROTC programs begin in October of odd years. The program review for resident and non-resident ACSC programs begin in September of odd years.¹¹⁴ This presents a unique opportunity for the Air Force this fall, as all these programs will be evaluated and potentially modified. More focus on counterinsurgency, and as a natural by-product, tactical airlift as an asymmetric advantage within counterinsurgency should receive more focused attention in future curriculums.

Increase in Leadership Positions Held by Tactical Airlifters

A reflection of the pre-eminent missions of the Air Force is represented by the demographics of its leadership. As stated above, the bomber community was the focus of the Air Force for its inception until the 1970s, when the fighter world gained prominence.¹¹⁵ Carl Builder argues that this is reflected by the communities from which the Air Force's senior leaders come.¹¹⁶ This argument is further bolstered by James Ford's study on Air Force culture. He also argues that the power struggle between bomber and fighter communities within the Air Force is reflected by the Service's leadership. His point: in 1960, the Air Force was clearly a bomber-focused force. Its leadership reflected this, since among the top 35 positions in the Air Force, 77% were bomber pilots and 11% were fighter pilots.¹¹⁷ In 1975, about the time when the fighter world "took over" the Air Force, the top 38 leadership positions were again analyzed. This time, the bomber pilots made up only 43% and the fighter pilots 41%. Airlifters made up 5%.¹¹⁸ By 1990, the fighter community ruled the Air Force, and Ford again demonstrates this was reflected by its leadership. Of the top 36 positions in the Air Force that year, 53% were fighter pilots, 18% were bomber pilots, and 4% were airlift pilots.¹¹⁹

Shift this argument to the Air Force of 2011. It is still a fighter-dominated Air Force. Yet Builder argues that if some other mission, such as airlift, became the most important means for the mission of the Air Force, then the leadership of the Air Force will shift accordingly.¹²⁰ He goes on to question whether fighter aviation is the center of gravity for the Air Force of the future. The current status of the fighter has evolved over the past 40 years, yet there are trends which suggest that more evolution could be underway.¹²¹ In extrapolating Ford's study to the present day, it is observed that more and more senior leaders have tactical airlift backgrounds. Three of the last four Chiefs of Staff of the Air Force have some type of airlift background, and

two of those three have tactical airlift in their pasts. The current Chief of Staff, General Norton Schwartz, began his Air Force career as a C-130E pilot.¹²²

Another encouraging sign regarding an increase in mobility leadership within the Air Force is that Operation ODYSSEY DAWN's Combined Force Air Component Commander is Major General Margaret Woodward. General Woodward has a mobility background, including KC-135 tankers.¹²³ Pointedly illustrating Air Force culture, two students at ACSC, notably from fighter and bomber backgrounds, described this development thusly: “a non-meat eater running the CFACC in Libya? Watch. This is going to be a train wreck. The Air Force won’t make this mistake again. Guarantee the next one’s a bomber or fighter pilot.” The question must be asked: why would a mobility pilot not be qualified to be a CFACC? The answer again focuses on culture: the organizational culture has inculcated this bias upon the masses.

Though one cannot simply snap his fingers and make more tactical airlifters senior leaders, this is nevertheless an encouraging sign for the tactical airlift community, especially since leaders influence the future evolution of an organization. Schein augments this by stating that cultural change can be attained by leaders “systematically promoting members of a subculture [in this case tactical airlift] into power positions in the overarching culture [the Air Force].”¹²⁴ This is not to suggest that General Schwartz should initiate a nepotistic Air Force. But just as the bomber and fighter generals promoted those from within their own tribes in the Air Force and further solidified their respective community’s hold on Air Force culture, perhaps the tactical airlift community has managed to wedge its foot in the proverbial door.

Generals Schwartz and Woodward are both being observed carefully by the greater Air Force population, and successful performances in their duties will be crucial for continuing the

cultural shift in thought toward a greater mobility, and by association, tactical airlift prominence within the Air Force.

Embedding Observable Criteria to Change Air Force Culture

Finally I recommend the tactical airlift community more actively “take care” of its own. Tactical airlifters hold a quiet pride about their mission. They are similar to a football team’s offensive linemen. They don’t receive nor seek glory or recognition. In fact the only time they are noticed is when they make a mistake or commit a penalty. Yet the football team would be hopeless in its quest to win the game without them. The tactical airlift community itself must assist the overarching Air Force culture in recognizing its value. Pushing its young stars for higher-level awards and recognition will only enhance tactical airlift’s value to the rest of the Air Force, and increase airlifters’ sense of self-worth. As Schein affirms, a primary embedding mechanism for culture change is allowing the organization to observe the criteria leadership uses to promote and allocate rewards and status.¹²⁵ For example, at Little Rock Air Force Base, none of the Air Mobility Command majors eligible for promotion two years below the zone (a clear identifier of a future senior Air Force leader) were selected during the 2010 promotion cycle. As one squadron commander said, “Little Rock does a terrible job of taking care of its own, especially at promotion boards. Nobody gets promoted early.”¹²⁶ This view can be extrapolated across the tactical airlift community. Though it is quite possible that there were no “two-below” majors worthy of a “Definitely Promote” rating at the 2010 board, the fact that there is a perceived lack of interest in promoting rising stars early should be investigated.

A greater focus on rewarding and recognizing valor should also be emphasized within the tactical airlift community. AFCENT should be flooded with submissions for medals in the combat theaters. Several cases warranting a combat action medal have been ignored, denied, or

not even submitted for consideration in Afghanistan since 2001. Further, AMC should be flooded with submissions for annual Air Force-level award nominations each year by the tactical airlift community. In turn, AMC should inundate the Air Staff with a proportionate number. Only by continuously being mentioned in the same breath as other “high visibility” tribes can the tactical airlift world achieve more prominence within the Air Force culture.

Continued Experimentation and Employment of Direct Support

The concept of direct support must continue to be explored and executed in the combat environment. Slow, unresponsive scheduling processes and mission execution cycles inhibit speed, the very asymmetric advantage airpower provides. Direct support accentuates the counterinsurgent’s responsiveness and speed, and therefore should not be abhorred but embraced as a valuable Air Force capability. The experiments in Afghanistan and Iraq demonstrate the concept is feasible. Only with continued employment and success will the Air Force culture begin to gradually accept direct support as a viable and acceptable method of employment in the joint COIN fight. Success breeds success. As positive feedback, increased efficiency and effectiveness, and mission accomplishment and morale continue to increase, the concept of direct support will become less and less abhorrent until it has become a standard method of employment for both tactical airlift crews and the Air Force culture as a whole.

However, care should be taken in the method of employment. Limited TACON over Air Force assets for limited amounts of time, perhaps for specific campaigns or operations, will prevent abuse and inefficiencies. Executed properly, direct support may in time become the most efficient, effective, and popular method of employing tactical airlift within counterinsurgency operations.

Conclusion

Tactical airlift is absolutely crucial for success in counterinsurgency. History is replete with examples where tactical airlift or the lack of it made the difference for combatant commanders, yet tactical airlift remains marginalized as a fringe mission within the Air Force. This is because Air Force culture, born as an organization desperate to validate its independence and fiercely resistant to falling back under the control of the Army, has made it so. Despite the historical examples, numerous statements from ground commanders declaring the huge value they place on tactical airlift, and quotations from experts within academia proclaiming airlift becomes more important than strike in counterinsurgency, Air Force culture refuses to allow tactical airlift to move to the forefront of Air Force focus.

Direct support may be the most effective means of employing tactical airlift during COIN operations. For a limited time period with limited assets, focused on tactical-level personal relationships between services, direct support not only reflects true “jointness,” but can be both highly effective and efficient. Unfortunately, Air Force culture precludes this relationship, and though experiments with the concept have been successful, roadblocks have been met. Those roadblocks were set by the Air Force culture, which must itself be changed in order to improve tactical airlift’s influence.

Proper education of Airmen on all facets of air power including tactical airlift will begin the culture shift necessary to enable that role to escape the fringe and assume a more prominent focus within the Air Force. This is not to say the other Air Force missions should be reduced in assets or value. The Air Force is the provider of air power across the spectrum of missions, and should not lose sight of that. While tactical airlift gains in prominence and influence the other roles should not lose their seat. Even though the fighter gained prominence in the late 1900s,

eventually overtaking the bomber, the bomber did not lose its place at the “big table” of Air Force roles and missions. It is time for tactical airlift to take its seat at that table, one shared with the other missions.

Callwell states that “counterinsurgency is war against the environment.” Tactical airlift provides a critical, asymmetric advantage that, if used properly, efficiently, and effectively, can ensure the Air Force remains relevant in the modern battlespace of counterinsurgency. Ironically, the tactical airlift community must battle against the environment of Air Force culture to end its marginalization and take its place among the prominent roles and missions to ensure the Air Force remains relevant within the Washington, D.C. beltway. Perhaps this paper will assist in that battle in some small way.



Endnotes

¹ Galula, David. *Counterinsurgency Warfare: Theory and Practice*. Westport, Connecticut: Praeger Security International, [1964] 2006, 4.

² Callwell, Charles E. *Small Wars: Their Principles and Practice*. Lincoln, Nebraska: University of Nebraska Press, 1996, 58.

³ Kilcullen, David. *The Accidental Guerrilla: Fighting Small Wars in the Midst of a Big One*. New York: Oxford University Press, 2009, 96.

⁴ Ibid., 105.

⁵ Hughes, Thomas Alexander. *Overlord: General Pete Quesada and the Triumph of Tactical Air Power in World War II*. New York: The Free Press, 1995, 14.

⁶ Ibid., 310-314.

⁷ From the author's personal experiences, extracted from journal entries, April-August 2009.

⁸ Corum, James S. and Johnson, Wray R. *Airpower in Small Wars: Fighting Insurgents and Terrorists*. Lawrence, Kansas: University Press of Kansas, 2003, xi.

⁹ Owen, Robert C. and Mueller, Karl P. *Airlift Capabilities for Future U.S. Counterinsurgency Operations*. Arlington, Virginia: RAND Corporation, 2007, vii-xiv.

¹⁰ Boot, Max. *The Savage Wars of Peace: Small Wars and the Rise of American Power*. New York: Basic Books, 2002, 240.

¹¹ Corum, James S. and Johnson, Wray R. *Airpower in Small Wars: Fighting Insurgents and Terrorists*. Lawrence, Kansas: University Press of Kansas, 2003, 132.

¹² Ibid., 272.

¹³ Omissi, David E. *Air Power and Colonial Control: The Royal Air Force 1919-1939*. New York: Manchester University Press, 1990, 70-74.

¹⁴ Towle, Philip A., *Pilots and Rebels: The Use of Aircraft in Unconventional Warfare 1918-1988*. London: Brassey's, 1989, 14.

¹⁵ Ibid., 81-95.

¹⁶ Ibid., 106-116.

¹⁷ Flintham, Victor. *Air Wars and Aircraft: A Detailed Record of Air Combat, 1945 to the Present*. New York: Facts On File, 1990, 301.

¹⁸ Horn, Kenneth, et al., *Use of the C-27J Fixed-Wing Aircraft for Conducting Army Mission Critical, Time Sensitive Mission in Counterinsurgency Operations* Horn, Kenneth, et al. *Use of the C-27J Fixed-Wing Aircraft for Conducting Army Mission Critical, Time Sensitive Missions in Counterinsurgency Operations*. Arlington, Virginia: RAND Corporation, 2010, 1-4.

¹⁹ Ibid., ix.

²⁰ Owen, Robert C. and Mueller, Karl P. *Airlift Capabilities for Future U.S. Counterinsurgency Operations*. Arlington, Virginia: RAND Corporation, 2007, 41-47.

²¹ Hughes, Thomas Alexander. *Overlord: General Pete Quesada and the Triumph of Tactical Air Power in World War II*. New York: The Free Press, 1995, 14.

²² Builder, Carl H. *The Masks of War*. Baltimore, Maryland: RAND Corporation, Johns Hopkins University Press, 1989, 8.

²³ Builder, Carl H. *The Icarus Syndrome: The Role of Air Power Theory in the Evolution and Fate of the U.S. Air Force*. New Brunswick, Rhode Island: RAND Corporation, Transaction Publishers, [1994] 1996, 179-180.

²⁴ Galula, David. *Counterinsurgency Warfare: Theory and Practice*. Westport, Connecticut: Praeger Security International, [1964] 2006, 28.

²⁵ Ibid., 65.

²⁶ United States Army and Marine Corps Field Manual 3-24, *Counterinsurgency*. Washington, D.C., 2006, E-4.

²⁷ U.S. Marine Corps, *Small Wars Manual*, reprint, Washington, D.C.: U.S. Government Printing Office, [1940] 1987, Chapter IX, 21-24.

²⁸ United States Air Force Doctrine Document 2-3 (Renamed 3-24): *Irregular Warfare*. Washington, D.C., 2007, 40.

²⁹ Corum, James S. and Johnson, Wray R. *Airpower in Small Wars: Fighting Insurgents and Terrorists*. Lawrence, Kansas: University Press of Kansas, 2003, 496.

³⁰ The Second Boer War did see the use of lighter-than-air aircraft, such as balloons, for observation. This study focuses on tactical airlift and as such makes only a passing reference to airpower in that war.

³¹ Nasson, Bill. *The South African War, 1899-1902*. New York: Oxford University Press, 1999, 135.

³² Ibid., 150-151.

³³ Ibid., 171.

³⁴ Ibid., 205.

³⁵ Hurley, Alfred F. *Billy Mitchell: Crusader for Air Power*. Bloomington, Indiana: Indiana University Press, [1964] 1975, 43.

³⁶ Towle, Philip A., *Pilots and Rebels: The Use of Aircraft in Unconventional Warfare 1918-1988*. London: Brassey's, 1989, 14.

³⁷ Omissi, David E. *Air Power and Colonial Control: The Royal Air Force 1919-1939*. New York: Manchester University Press, 1990, 32.

³⁸ Ibid., 72.

³⁹ Ibid.

⁴⁰ Ibid.

⁴¹ Ibid.

⁴² Ibid., 73.

⁴³ Boot, Max. *The Savage Wars of Peace: Small Wars and the Rise of American Power*. New York: Basic Books, 2002, 240.

⁴⁴ Corum, James S. and Johnson, Wray R. *Airpower in Small Wars: Fighting Insurgents and Terrorists*. Lawrence, Kansas: University Press of Kansas, 2003, 43.

⁴⁵ U.S. Marine Corps, *Small Wars Manual*, reprint, Washington, D.C.: U.S. Government Printing Office, [1940] 1987, Chapter IX, 21-24.

⁴⁶ LW Lecture, 18 November 2010, Air Command and Staff College, Maxwell Air Force Base, AL.

⁴⁷ Towle, Philip A., *Pilots and Rebels: The Use of Aircraft in Unconventional Warfare 1918-1988*. London: Brassey's, 1989, 82.

⁴⁸ Ibid., 89.

⁴⁹ Ibid., 91.

⁵⁰ Flintham, Victor. *Air Wars and Aircraft: A Detailed Record of Air Combat, 1945 to the Present*. New York: Facts On File, 1990, 330.

⁵¹ Ibid.

⁵² Ibid.

⁵³ Corum, James S. and Johnson, Wray R. *Airpower in Small Wars: Fighting Insurgents and Terrorists*. Lawrence, Kansas: University Press of Kansas, 2003, 195.

⁵⁴ Flintham, Victor. *Air Wars and Aircraft: A Detailed Record of Air Combat, 1945 to the Present*. New York: Facts On File, 1990, 330.

⁵⁵ Towle, Philip A., *Pilots and Rebels: The Use of Aircraft in Unconventional Warfare 1918-1988*. London: Brassey's, 1989, 107.

⁵⁶ Ibid., 108-109.

⁵⁷ Corum, James S. and Johnson, Wray R. *Airpower in Small Wars: Fighting Insurgents and Terrorists*. Lawrence, Kansas: University Press of Kansas, 2003, 149.

⁵⁸ Towle, Philip A., *Pilots and Rebels: The Use of Aircraft in Unconventional Warfare 1918-1988*. London: Brassey's, 1989, 109.

⁵⁹ Flintham, Victor. *Air Wars and Aircraft: A Detailed Record of Air Combat, 1945 to the Present*. New York: Facts On File, 1990, 258.

⁶⁰ Towle, Philip A., *Pilots and Rebels: The Use of Aircraft in Unconventional Warfare 1918-1988*. London: Brassey's, 1989, 110.

⁶¹ Ibid.

⁶² Ibid.

⁶³ Flintham, Victor. *Air Wars and Aircraft: A Detailed Record of Air Combat, 1945 to the Present*. New York: Facts On File, 1990, 259-260.

⁶⁴ Ibid., 262.

⁶⁵ Towle, Philip A., *Pilots and Rebels: The Use of Aircraft in Unconventional Warfare 1918-1988*. London: Brassey's, 1989, 111.

⁶⁶ Flintham, Victor. *Air Wars and Aircraft: A Detailed Record of Air Combat, 1945 to the Present*. New York: Facts On File, 1990, 263.

⁶⁷ Owen, Robert C. and Mueller, Karl P. *Airlift Capabilities for Future U.S. Counterinsurgency Operations*. Arlington, Virginia: RAND Corporation, 2007, 11.

⁶⁸ Ibid., 11.

⁶⁹ Ibid.

⁷⁰ Prados, John and Stubbe, Ray W. *Valley of Decision: The Siege of Khe Sanh*. Boston: Houghton Mifflin Company, 1991, 7.

⁷¹ Ibid., 7-10.

⁷² Ibid., 155.

⁷³ Flintham, Victor. *Air Wars and Aircraft: A Detailed Record of Air Combat, 1945 to the Present*. New York: Facts On File, 1990, 301.

⁷⁴ Prados, John and Stubbe, Ray W. *Valley of Decision: The Siege of Khe Sanh*. Boston: Houghton Mifflin Company, 1991, 379.

⁷⁵ Flintham, Victor. *Air Wars and Aircraft: A Detailed Record of Air Combat, 1945 to the Present*. New York: Facts On File, 1990, 302.

⁷⁶ Telephone interview with Major Sean Barden, C-130J Evaluator Pilot. 7 December 2010.

⁷⁷ Ibid., 301.

⁷⁸ Ibid., 302.

⁷⁹ Prados, John and Stubbe, Ray W. *Valley of Decision: The Siege of Khe Sanh*. Boston: Houghton Mifflin Company, 1991, 379.

⁸⁰ Willbanks, James H. *The Battle of An Loc*. Bloomington, Indiana: Indiana University Press, 2005, 18.

⁸¹ Ibid., 28..

⁸² Thi, Lam Quang. *Hell in An Loc: The 1972 Easter Invasion and the Battle That Saved South Viet Nam*. Denton, Texas: University of North Texas Press, 2009, 189.

⁸³ Willbanks, James H. *The Battle of An Loc*. Bloomington, Indiana: Indiana University Press, 2005, 108.

⁸⁴ Ibid., 109.

⁸⁵ U.S. Marine Corps, *Small Wars Manual*, reprint, Washington, D.C.: U.S. Government Printing Office, [1940] 1987, Chapter IX, 3.

⁸⁶ From the author's personal experiences, extracted from journal entries, April-August 2009.

⁸⁷ Data collected by the author from the 772 Expeditionary Airlift Squadron, Kandahar Airfield, Afghanistan.

⁸⁸ Data collected by the author from the 772 Expeditionary Airlift Squadron, Kandahar Airfield, Afghanistan.

⁸⁹ Builder, Carl H. *The Masks of War*. Baltimore, Maryland: RAND Corporation, Johns Hopkins University Press, 1989, 7.

⁹⁰ Ibid.

⁹¹ Schein, Edgar H. *Organizational Culture and Leadership*. San Francisco, California: Jossey-Bass, 2004, 225.

⁹² Hughes, Thomas Alexander. *Overlord: General Pete Quesada and the Triumph of Tactical Air Power in World War II*. New York: The Free Press, 1995, 14.

⁹³ Schein, Edgar H. *Organizational Culture and Leadership*. San Francisco, California: Jossey-Bass, 2004, 225.

⁹⁴ Hughes, Thomas Alexander. *Overlord: General Pete Quesada and the Triumph of Tactical Air Power in World War II*. New York: The Free Press, 1995, 119.

⁹⁵ Corum, James S. and Johnson, Wray R. *Airpower in Small Wars: Fighting Insurgents and Terrorists*. Lawrence, Kansas: University Press of Kansas, 2003, 270.

⁹⁶ Hughes, Thomas Alexander. *Overlord: General Pete Quesada and the Triumph of Tactical Air Power in World War II*. New York: The Free Press, 1995, 14.

⁹⁷ Builder, Carl H. *The Masks of War*. Baltimore, Maryland: RAND Corporation, Johns Hopkins University Press, 1989, 131.

⁹⁸ Corum, James S. and Johnson, Wray R. *Airpower in Small Wars: Fighting Insurgents and Terrorists*. Lawrence, Kansas: University Press of Kansas, 2003, 273.

⁹⁹ Rivera, Francisco. *Intra-theater Air Mobility and Theater Distribution for the Joint Force Commander: Is the United States Central Command Model the Best?* USAF School of Advanced Airpower Studies, Air University Press, 2010, 37.

¹⁰⁰ Data collected by the author from the 772 Expeditionary Airlift Squadron, Kandahar Airfield, Afghanistan.

¹⁰¹ Ibid.

¹⁰² From the author's personal journal entries, April-August 2009.

¹⁰³ From the author's personal journal entries, April-August 2009.

¹⁰⁴ Ibid.

¹⁰⁵ Boone, Keith, *Aerial Delivery, Responsive Airlift and Direct Support to Coalition Ground Forces: COIN Operations in Afghanistan*. Airlift/Tanker Association Briefing, October 31, 2010.

¹⁰⁶ Ibid.

¹⁰⁷ Major Brad Lorentz, North Dakota Air National Guard. Interview conducted by author on November 24, 2010.

¹⁰⁸ Comments by Captain Denny Davies, 772 AES. Extracted from the author's journal entries, April-August 2009.

¹⁰⁹ Quotation from ATOC personnel. From the author's personal journal entries, April-August 2009 .

¹¹⁰ Presentation in Wood Auditorium, Air Command and Staff College, January 25, 2010.

¹¹¹ Reinholtz, David A. *A Way to Improve Our "Marginal" Counterinsurgency Airlift Capability*. Armed Forces Journal International, July 1987. Washington: Army and Navy Journal, Inc., 1987.

¹¹² Bass, Patrick. *Aerospace Studies 200: The Evolution of US Air and Space Power Course Syllabus and Classroom Policies*, AFROTC Detachment 5, Auburn University, 2010.

¹¹³ United States Air Force. Air University Instruction (AUI) 36-2306 *Air University Educational Program Review*. Maxwell Air Force Base, Alabama, 24 September 2007.

¹¹⁴ Ibid., 9.

¹¹⁵ Builder, Carl H. *The Masks of War: American Military Styles in Strategy and Analysis*. Baltimore: Johns Hopkins University Press, 1989, 138.

¹¹⁶ Builder, Carl H. *The Icarus Syndrome: The Role of Air Power Theory in the Evolution and Fate of the U.S. Air Force*. New Brunswick: Transaction Publishers, 1994, 229.

¹¹⁷ Ford, James M. *Air Force Culture and Conventional Strategic Airpower*. USAF School of Advanced Airpower Studies, Air University Press, 1992, 36.

¹¹⁸ Ibid., 43.

¹¹⁹ Ibid., 51.

¹²⁰ Builder, Carl H. *The Icarus Syndrome: The Role of Air Power Theory in the Evolution and Fate of the U.S. Air Force*. New Brunswick: Transaction Publishers, 1994, 229.

¹²¹ Ibid.

¹²² "Biography – General Norton A. Schwartz, Chief of Staff" <https://www.my.af.mil/gcss-af/USAF/ep/contentView.do?contentType=EDITORIAL&contentId=c6925EC1A19CD0FB5E044080020E329A9&chainPageId=s6925EC13506C0FB5E044080020E329A9&programId=t6925EC32A5120FB5E044080020E329A9> (accessed 10 February 2011).

¹²³ "Major General Margaret H. Woodward." <http://www.17af.usafe.af.mil/library/biographies/bio.asp?id=13605> (accessed 20 March 2011).

¹²⁴ Schein, Edgar H. *Organizational Culture and Leadership*. San Francisco, California: Jossey-Bass, 2004, 316.

¹²⁵ Ibid., 231.

¹²⁶ Anonymous to avoid negative repercussions. Interview conducted by author via email on August 30, 2010.

Bibliography

Boot, Max. *The Savage Wars of Peace: Small Wars and the Rise of American Power*. New York: Basic Books, 2002.

Builder, Carl H. *The Icarus Syndrome: The Role of Air Power Theory in the Evolution and Fate of the U.S. Air Force*. New Brunswick: Transaction Publishers, [1994] 1996.

Builder, Carl H. *The Masks of War: American Military Styles in Strategy and Analysis*. Baltimore: Johns Hopkins University Press, 1989.

Callwell, Charles E. *Small Wars: Their Principles and Practice*. Lincoln, Nebraska: University of Nebraska Press, 1996.

Corum, James S. and Johnson, Wray R. *Airpower in Small Wars: Fighting Insurgents and Terrorists*. Lawrence, Kansas: University Press of Kansas, 2003.

Flintham, Victor. *Air Wars and Aircraft: A Detailed Record of Air Combat, 1945 to the Present*. New York: Facts On File, 1990.

Ford, James M. *Air Force Culture and Conventional Strategic Airpower*. USAF School of Advanced Airpower Studies, Air University Press, 1992.

Galula, David. *Counterinsurgency Warfare: Theory and Practice*. Westport, Connecticut: Praeger Security International, [1964] 2006.

Horn, Kenneth, Loredo, Elvira N., Cram, Steven, Jamison, Lewis, McLaren, Christopher, Phillips, William, and Sullivan, Jeffrey *Use of the C-27J Fixed-Wing Aircraft for Conducting Army Mission Critical, Time Sensitive Missions in Counterinsurgency Operations*. Arlington, Virginia: RAND Corporation, 2010.

Hughes, Thomas Alexander. *Overlord: General Pete Quesada and the Triumph of Tactical Air Power in World War II*. New York: The Free Press, 1995.

Hurley, Alfred F. *Billy Mitchell: Crusader for Air Power*. Bloomington, Indiana: Indiana University Press, [1964] 1975.

Kilcullen, David. *The Accidental Guerilla: Fighting Small Wars in the Midst of a Big One*. New York: Oxford University Press, 2009.

Nasson, Bill. *The South African War, 1899-1902*. New York: Oxford University Press, 1999.

Omissi, David E. *Air Power and Colonial Control: The Royal Air Force 1919-1939*. New York: Manchester University Press, 1990.

Owen, Robert C. and Mueller, Karl P. *Airlift Capabilities for Future U.S. Counterinsurgency Operations*. Arlington, Virginia: RAND Corporation, 2007.

Prados, John and Stubbe, Ray W. *Valley of Decision: The Siege of Khe Sanh*. Boston: Houghton Mifflin Company, 1991.

Reinholz, David A. *A Way to Improve Our “Marginal” Counterinsurgency Airlift Capability*. Armed Forces Journal International, July 1987. Washington: Army and Navy Journal, Inc., 1987.

Rivera, Francisco. *Intra-theater Air Mobility and Theater Distribution for the Joint Force Commander: Is the United States Central Command Model the Best?* USAF School of Advanced Airpower Studies, Air University Press, 2010.

Schein, Edgar H. *Organizational Culture and Leadership*. San Francisco, California: Jossey-Bass, 2004.

Thi, Lam Quang. *Hell in An Loc: The 1972 Easter Invasion and the Battle That Saved South Viet Nam*. Denton, Texas: University of North Texas Press, 2009.

Towle, Philip A., *Pilots and Rebels: The Use of Aircraft in Unconventional Warfare 1918-1988*. London: Brassey's, 1989.

United States Army and Marine Corps Field Manual 3-24 *Counterinsurgency*. Washington, D.C., 2006.

United States Marine Corps, *Small Wars Manual*, reprint, Washington, D.C.: U.S. Government Printing Office, [1940] 1987.

United States Air Force, Air University Instruction (AUI) 36-2306, *Air University Educational Program Review*. Maxwell Air Force Base, Alabama, 24 September 2007.

Willbanks, James H. *The Battle of An Loc*. Bloomington, Indiana: Indiana University Press, 2005.